North Atlantic Convoy Raider II

NORTH ATLANTIC CONVOY RAIDER II RULES

FOR:
ATARI 400/800®, 16K Memory
Apple II®, Applesoft® Basic, 16K beyond Basic
PET® 2001, 16K Memory
TRS-80® Level II, 16K Memory

® Trademarks of Warner Communications, Apple, Commodore and Tandy Corp.

© 1981 Microcomputer Games, Inc. division of
The Avalon Hill Game Co., Baltimore, MD, Printed in USA

INTRODUCTION

NORTH ATLANTIC CONVOY RAIDER II is a computer simulation of World War II naval combat in the North Atlantic Ocean. As the Captain of the super-battleship Bismarck, your assignment is to break the British blockade and rampage through the convoy lanes. The German Admiralty would appreciate it if you could get the Bismarck back to port, or at least sink enough British ships to justify her loss.

The British forces, under the control of your computer, try to sink the Bismarck with minimal losses to themselves. They can afford to sacrifice one or two battleships (even the mighty Hood) as long as the convoys are protected and the Bismarck is eventually sunk. If the Bismarck manages to return to port, the British can still win if their losses are light and the Bismarck is heavily damaged.

THE SCREEN DISPLAY

The player's attention will be on the screen display throughout the game. There are four sections on the display, each presenting one part of the whole situation: the map, the status data, the spotted ship roster, (except PET) and the message line.

The map grid represents a portion of the North Atlantic Ocean. The distance between dots on the grid is 100 nautical miles. The asterisks on the right of the map ("*") represent port entry zones. When the Bismarck sails east off the map at one of the port entry zones, the game is over. Note that the asterisks do not represent the ports themselves.

Directions on the map grid are the same as most maps: UP = NORTH, RIGHT = EAST, DOWN = SOUTH, LEFT = WEST. The map also has a co-ordinate system for locating ships (except PET). Each location is a pair of numbers, or coordinates, in units of nautical miles. The first coordinate is the distance from the left (west) edge of the map; the second coordinate is the distance from the bottom (south) edge of the map.

A ship is represented on the map by the first letter of its name. The letter is placed in the character location on the map which most closely corresponds to its actual coordinates. It is possible that several letters could overlap. Since the actual coordinates are displayed on the ship roster (except PET) (see below), this usually causes no great difficulty. Suspected convoy locations are represented by "C?" on the map.

The status information is displayed in a block below the map. It gives the hours of fuel remaining, current speed, current heading, number of operational turrets, floatation damage, and current weather conditions.

The ship roster (except PET) is a list of the currently spotted ships and their coordinates. The first coordinate listed is the distance from the west edge, the second is the distance from the south edge. The distance between two ships is the square root of the sum of the squares of the differences in their coordinates. It is not necessary to calculate this by hand because the computer will give the distance to the Bismarck as the third number when the ship is within 99 nautical miles.

The message line is used to display temporary messages during the course of play, and to prompt the player for keyboard input when needed. Since the messages do not stay on the screen for more than a few seconds, it is necessary to pay attention. NORTH ATLANTIC CONVOY RAIDER II proceeds in scaled real time; you may not be doing anything, but the computer certainly is!

PLAYER COMMANDS

One of the most unusual aspects of the NORTH ATLANTIC CONVOY RAIDER system is that there are very few "commands" for the player to input. This results in a game system which is very clean and easy to learn, but don't be fooled; there is a lot of hidden

strategy and the naive player will rarely be successful.

The single most important decision the Captain of the Bismarck has to make is where to go next. You make this decision by selecting a new course. The course of the Bismarck is given in compass degrees: 0 or 360 = NORTH, 90 = EAST, 180 = SOUTH, and 270 = WEST. Any course between can also be selected.

ATARI, TRS-80, APPLE

To select a new course, type the first digit of the new course and WAIT for the computer to respond with

NEW COURSE?

on the message line. On the Apple, and Atari computers, release the key after you press it. On the TRS-80, hold the key down. Note that your digit will not be displayed on the screen until the computer is ready for the rest of the input. When the computer responds, type the rest of the new course and end your input with RETURN (or ENTER).

There will be many times when it is clear that a course change is needed, but not clear what exact course should be selected. The best way to deal with this situation is to give "0" as the first digit, then enter the rest at leisure. The computer interprets "0295" the same as "295".

PET

After printing the grid, the computer will ask for a command. Typing an "H" followed by ENTER will signal the computer for a change of heading. Pressing "N" will maintain current heading. Input the new heading. The computer will then ask for how many hours to continue on course. Hitting the Space Bar will allow you to alter course during movement portion of the game.

The only other input needed from the player is the target ship in surface combat. (except PET). The computer will stop the game to ask for the target ship, and the player simply types the name of his choice, followed by RETURN (or ENTER). It is not necessary to type the full name, but enough letters should be typed to identify the ship uniquely among all ships in the British fleet, whether in range or not.

There is no specific command for an attempt to withdraw from combat. Instead, one simply changes course to a direction away from the enemy and hopes that either speed or foul weather will do the rest. To change direction during (except PET) combat, remember to type "0" immediately after your target selection so that the computer knows a new course is desired.

BEGINNING THE GAME

When the BASIC game program is loaded, type "RUN" and RETURN (or ENTER) to begin. The computer will ask how many British ships the Bismarck will fight (except PET). The player should type a number from 4 (novice) to 9 (expert), then RETURN (or ENTER). The computer will display a list of the British fleet for several seconds, then begin the game. Remember that the game runs in scaled real time.

Since the computer makes sure all the rules are followed, it is not necessary to know the details of play. However, the information below will be of great help in planning strategy.

CONVOYS

All convoys in the game travel due west at 10 knots. The convoy locations are initially unknown to the Bismarck. During the game, spies (except PET) will report the approximate positions of some of the convoys. The Bismarck can head for these if desired, or simply sweep the ocean hoping to find one by chance. When the Bismarck encounters a convoy and there are no British capital ships in gunnery range, the convoy is assumed to be disrupted and U-boats will finish the actual sinking of merchant ships. Once disrupted, a convoy has no further effect on the game. The German player receives 25 points for disrupting a convoy. (In the PET version, the computer will display this number of merchant ships the Bismarck sinks).

U-BOATS (except PET)

In addition to attacking convoys as indicated above, U-boats can spot British capital ships. Ships spotted by U-boats will be included on the display for a short time only. The operation of U-boats is handled by the computer.

AIRCRAFT CARRIERS (except PET)

British aircraft carriers serve two functions. First, they provide reconnaissance over an extended area (weather permitting) with their aircraft. Since spotting the Bismarck is necessary before the British ships can intercept her, this capability is extremely important. In clear weather, the effective radius of carrier air search is 300 nautical miles.

British aircraft carriers can also launch torpedo attacks against the Bismarck. The British torpedo bombers of 1941, Swordfish biplanes, were not noted for excessive accuracy when attacking fast targets. However, a few hits can slow the Bismarck down and allow the British fleet to intercept. All aspects of torpedo attacks are handled automatically. The effective radius of Swordfish attacks is 200 nautical miles.

It will be very rare that the Bismarck will bring an aircraft carrier under her guns because the British carriers are programmed to maintain their distance. However, this can happen when the Bismarck is not shadowed (see below) and by chance encounters a carrier at close range in bad weather.

PBY SEARCH

PBY scout planes based in the British isles and Iceland search for the Bismarck during good weather. The probability of being spotted by a PBY is greater in the northeastern part of the map, but it is possible to be spotted anywhere.

SHADOWING (except PET)

When the Bismarck is spotted, planes and cruisers are assigned to shadow. While the Bismarck is being shadowed, the British are able to set interception (or avoidance) courses for their ships based on the Bismarck's current location, speed, and course. The Bismarck automatically (i.e. invisibly to the player) attempts to evade the shadow.

The message line will inform the player when shadow evasion is successful. Note that if the Bismarck does not change course after evading its shadow, the British ships will retain valid interception courses and eventually sight the Bismarck. In addition, the Bismarck could be spotted again immediately after evading its shadow.

SURFACE COMBAT

When opposing ships are within 20 nautical miles or maximum sighting range (whichever is less), surface combat begins. If the ships are meeting head on, surface combat can begin at reduced range, but generally speaking, surface combat will begin near maximum range. As time progresses, the range will change based on the courses of the ships and their relative speeds.

Gunnery is more accurate as the range decreases. While it is possible to score hits out to 20 nautical miles, the results will be better the closer the target. The Bismarck is allowed first volley and better accuracy, reflecting the efficiency of her crack crew.

When a ship is hit in surface combat, the program will display the type of hit on the message line. There are two types of gunnery hits: minor and major. Minor hits do general damage to the floatation (ability to stay above water) and speed of a ship. Major hits do more serious damage to floatation and speed, and either put a turret out of action (if any) or damage the fuel bunkers (loss of fuel). When the floatation damage reaches or exceeds 100%, the ship sinks. When a ship is out of fuel, it comes to a stop. Since the North Atlantic Ocean in 1941 was basically a British lake, the program assumes that the Bismarck is lost if it runs out of fuel.

WEATHER

As used in this game, weather refers to local atmospheric conditions and light (day or night). Visibility is affected by the weather, from foggy night (worst) to clear day (best). Hazy weather reduces visibility to a condition between clear and foggy. Weather also affects gunnery, air search, and shadowing.

Weather tends to be foggy in the northern areas of the map, clear in the southern areas of the map.

During the night, British gunnery effectiveness is reduced and air operations are not possible. Air operations are also impossible in foggy weather.

VICTORY POINTS (except PET)

Victory points are used to determine the winner of the game and the degree of victory. The German player receives 25 points per disrupted convoy and up to 90 points per British battleship sunk. Additional points are earned for sinking aircraft carriers and damaging ships.

The British receive 200 points for sinking the Bismarck, or 20 points for driving her back to port plus additional points for damaging her.

The victory conditions reward the Captain who brings the Bismarck back to port. Disrupting one convoy is enough to win a marginal victory if the Bismarck receives only minor damage in the process. A minor victory can be obtained with a ratio of 3:2 in victory points, while a major victory can be obtained with a ratio of 3:1 in victory points. The victory conditions were formulated to account for the overall German strategic naval situation in 1941.

VICTORY POINTS (PET)

The victory conditions are heavily weighted towards the British (computer) to compensate for inferior ships and lack of a sophisticated strategy. Simply sinking one British battleship and then returning to port is not good enough. The game ends when the Bismarck is sunk or returns to a port, at which time the victor and level of victory are printed.

CASSETTE LOADING INSTRUCTIONS

ATARI 400/800

Lift the cartridge door on your ATARI 400/800 computer and insert the COMPUTING LANGUAGE BASIC cartridge into the computer. Use the LEFT CARTRIDGE slot on the ATARI 800 system.

Press the POWER switch on the side of the console ON. With SIDE ONE of the cassette up, put it into your ATARI CASSETTE RECORDER and press 'REWIND' until the tape stops moving. Using the keyboard, type:

CLOAD

Then press the 'RETURN' key on the keyboard. You will hear one beep. Push 'PLAY' on the recorder and press the 'RETURN' key on the keyboard again. The recorder should start to move and the program will be loaded. By turning up the volume on your video screen you can hear the program being loaded. When the tape stops, the program has been transferred from the cassette tape to the computer. 'READY' will be displayed on the screen. Type: 'RUN' and press the 'RETURN' key to play the game. The program has been recorded on the cassette twice to insure against errors in loading. Should your video screen display the word ERROR, press the RESET button at the top righthand corner of the keyboard and repeat all of the above loading instructions.

APPLE II

The APPLE program is located on SIDE ONE after the Atari program. There are two copies of the Atari 800 program which must be skipped before the APPLE program can be loaded. By listening to the tape, you can tell the difference between the two programs. The APPLE program is easily recognized by the relatively high pitch and 'pure' quality of the calibration tone at the beginning of the program. This tone is free of the characteristic Atari 800 high pitched buzz. Find the beginning of an APPLE program and position the tape to just after the start of the calibration tone. Set up the recorder for input. On the keyboard, type:

LOAD (Don't hit 'RETURN' yet).

Press 'PLAY' on the recorder and immediately press 'RETURN' on the keyboard. The computer will start reading in your program. The computer will beep twice, once at the beginning of the program and once at the end. This program is not short and will take a few minutes to load. When you hear the second beep, type:

RUN

and press 'RETURN' to play the game.

COMMODORE PET 2001

Turn the tape over so SIDE TWO is up. Insert the tape in your recorder and rewind to the beginning of the tape. When ready, type:

LOAD

and press the 'RETURN' button on the keyboard, then the 'PLAY' button on the recorder. The tape should start moving, and start loading your program. This pro-

gram is not short, and will take several minutes to load. The computer will tell you when it finds the program and starts loading. When done, the computer will print 'READY', and the tape will stop. Type:

RUN

and press 'RETURN' to play the game.

TRS-80

The TRS-80 program is located on SIDE TWO after the PET 2001 program. There are two copies of the PET program which must be skipped before the TRS-80 program can be loaded. By pulling out the EAR and MIC jacks on the recorder and listening to the tape, you can differentiate the PET program from the TRS-80 program. The PET sounds louder, yet has a lower pitch. Both PET programs last approximately a total of 8½ minutes and are followed by a portion of blank tape which is your cue to prepare to load the TRS-80 program.

Check that the volume control is set to the proper level (between 5 and 6 is normal). Press 'PLAY' on the recorder, type:

CLOAD
(For Mod III only, enter: L after CASS?, then CLOAD)

and press the 'ENTER' key on the keyboard. The recorder should start to move and your program will be loaded. This will be indicated by the flashing asterisk at the upper right corner of the screen. This program is not short, and will take several minutes to load. When the tape stops and the TRS-80 prints 'READY' on the screen, type:

RUN

and press 'ENTER' to play the game.

IF YOU CANNOT LOAD THE PROGRAM

1. Check your equipment carefully to be sure that all cables and connections are correct.
2. Re-read the section in your computer's manual that tells you how to load a tape. Try to load the tape again.
3. If you can adjust the volume on your recorder, try different settings, both higher and lower.
4. Each program is recorded twice on the tape, one recording right after the other. By listening to the tape, find the beginning of the second recording and try to load it.
5. If possible, load another program from a tape you know works on your computer. This will prove that your equipment works. Try once more to load your game.
6. The normal reason tapes will not load is tape recorder head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to read tapes made on a different recorder for this reason. Be sure your recorder heads are correctly aligned. Your local computer store or dealer can help you with this.
7. If the program still cannot be loaded, send the cassette, with a complete description of the problem (what type of computer you have, what the computer says, if anything, when you try to load the cassette or play the game, and what you did to try to get it to load.) to:

Avalon Hill Microcomputer Games
4517 Harford Road
Baltimore, Maryland 21214

Defective cassettes will be replaced.

After the program is loaded

Once you have your program loaded, it is a good idea to make a backup copy (for your own use). Follow the normal procedure for saving a basic program in your computer's manual.

YOU NAME IT, WE'VE GOT A GAME ON IT . . .

The Avalon Hill Game Company is the world's largest publisher of a great variety of strategy board games of skill. We manufacture over 100 games; including wargames, sports strategy and statistical replay games, power politics games, adventure and role-playing games, and games on fantasy and science fiction. For complete information with pretty pictures, write the factory and ask for a *game catalog* on:

☐ Adventure Gaming (including war, SF, and fantasy games)

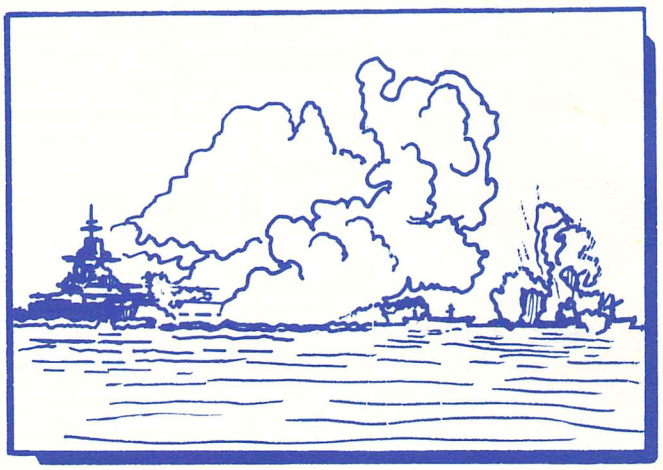
☐ Sports Gaming ☐ Leisure Time and Family Gaming

Send $1.00 for each catalog ordered.

The Avalon Hill Game Company
Consumer Relations
4517 Harford Road, Baltimore, MD 21214

QUESTIONS ON PLAY

The clarity of these rules has been verified by *Software Testers of Universal Microcomputer Programmers (STUMP)* and deemed *"complete"* in all facets of instruction. Please re-read them in areas that seem unclear at first reading. Questions on play can be answered by the factory *only* upon receipt of a self-addressed envelope bearing first-class postage.



Package Design & Art: Bob Haynes
Game Design: National Microcomputer Associates

6/81
V1839
4002001